**ADVERTISMENT SYSTEM IN MOBILE PLATFORM**

**WITH AUGMENTED REALITY**

1. **Motivation**

From the assessment of the limitations of traditional advertising methods and the rapid development of AR technology mentioned above; team has proposed the better solution for the deployment of the advertising program. It is the use example internet, mobile devices and **application of augmented reality in order to help the advertisement, disseminate information efficiently and more enjoyable**.

In fact, there were some projects applying AR technology in advertising but they mainly just stop at the trial, study or simply polish names for famous brands through fun and fresh AR products, they do not really aim at finding effective advertising.

To make the media programs, promotional information become no longer boring, monotonous with static information, the augmented reality will help users having more expanded information, fascinating, and multi-dimensional, real-time updates. It also helps users having interactive feedback. Advertisers will have the exact statistic numbers to make the program more effective. That is the purpose of the construction of the **applications of augmented reality systems in advertising industry**.

1. **Objectives**

Because the advertising section is a very broad field with the large number of products (electronic products, home appliances, industrial goods ....) so that team decide to build a demo system in particular business that is the field of advertising based on movie titles. Therefore, the interaction between real users with products will revolve around the topic about selection and watching movies at the cinemas.

The objective of this research is to develop a system for managing integrated advertising campaigns on mobile devices with augmented reality technology; and construction of the augmented reality presenter module in the form of multimedia, social media information on mobile devices (Android platform) following the campaigns that have been already defined.

1. **Functions summary**

***Management module* (Manager):** This is a website built on the ASP.net platform. It allows managers to build advertising, promotion programs using augmented reality by the simple operations.

The main functions of this module are:

- Additional augmented resources in multi-media formats (image, sound audio, video ...), social-media (web links for reference, blog, forum ...) and interactive activities if there is (implementation the survey questions, like, share, and comment on products ...) any picture of the product.

- Develop advertising campaigns: promotion, gifts, sale off, offer the activities interacting with the user...

- Manage advertising campaigns: change the duration of the campaign, perform statistics by multiple criteria (people who have attended, time, age, gender of users).

- Show all the products and attached augmented resources for users (not necessarily managers) having a global view about the ongoing products and the campaigns.

- Provides API for creating interactive bridge between databases with mobile devices and the web.

***Presenter*** ***module* (*Presenter*):** built on the Android platform, the module allows users to scan an image which has been uploaded to the database and performances augmented objects. Some key functions of this module includes:

- Allows users to register, login account.

- Show ongoing programs, advertising campaigns, the new campaigns, and the campaigns which users have participated...

- Display of the tasks and interactive activities with users, promotion and benefits of users.

- Allows users to scan images of products to show augmented resources, information of products.

- Allows users to like, share, comment, and feedback about products.

- Show support, instruction for user to use interactive activities, complete the tasks, and get the rewards, benefits...

1. **Result**

Group has built 3 types of campaigns (Scan image, Scan image with GPS, and Checkin) with:

\_ 8 campaigns

\_ 27 missions

The three above categories is build with the following script:

\_ Theater: Managers will build campaigns to encourage customers to go to movie theater of them. There is only one gift associtated with each film.

\_ Tour: This is the type of promotion to encourage pupils, student to visit around and completely find and important places in school/universities for getting enough information.

Notes: The scripts will be suitable for campaigns the are markets (visit stalls which organizers wish), companies (visit staff rooms), school (faculty department), or parks, environment center. The type of campaign gives customers a defined route.

\_ Check in: Customers just need to check in a place of one store and a series of stores to get gift.

Notes: The type of campaign is good for one store or series of stores such as: restaurants, movie theaters.